2: Bernardi E, M-4 (no date) 1955 FL12 Masai FL12

Thereupon we infer that the function of the age-unit is primarily social. Its scope is to organise the initiates into a corporate body, separate and distinct from other similar bodies, and to lead them, both as individuals and as a corporate whole, towards a full social and economic independence and towards taking a full share in political life. [150]

IX – THE CEREMONIES FOR THE INSTITUTION OF THE AGE CLASS

The institution of the age class is brought about by the performance of some special ceremonies, of which the most important is the *ngeherr* proper. Before this takes place, other ceremonies, such as " the slaughtering of the ox with jousting " (*ol geten 1 ol baa*), " the *ngeherr* of milk " and " the *ngeherr* of meat ", must be performed by every initiate. Through these performances the initiate obtains the status of an elder. The *aunoni* is the forerunner of all his age-mates. As was seen, at *Unoto*, he is given the status of an elder, and soon after that he settles down as a married man.

LEAKEY, [151] states that a warrior (i. e. an initiate) who marries cannot have sexual intercourse with his initiated wife. [152] FOX, [153] qualifies LEAKEY's statement and says that such a case " is hypothetical, and does not occur in practice ", because usually the senior initiates marry after the *ngeherr* of milk.

MERKER, [154] is our only authority for " the slaughtering of the ox with jousting ". The ceremony consists in a meat festival offered by the candidate to the elders of the neighbourhood of his father's village. Other initiates share the meat, but eat apart being still under the restrictions of junior initiates. A mock fight follows in which the initiates and women take part. Finally before the sun sets, " a married man with his chief wife comes near to their host and addresses him with the following words ":

[150] Each unit seems to be distinguished from the other by its peculiar songs. FOX, *l. c.*, p. 454, states that almost all of these songs are in a " rather cryptic language ".

[151] LEAKEY, *l. c.*, p. 200.

[152] LEAKEY was somehow misled in his information; he also states *l. c.*, p. 196, that " the actual transfer from the senior warrior stage to the Elder's stage takes place without any ceremonial ", which is not correct.

[153] FOX, *l. c.*, p. 455.

[154] MERKER, *l. c.*, pp. 102 ss.

*648 [182]

EDUCATION.—Under the enforced military inactivity, brought about by the PAX BRITANNICA, the Masai were rapidly deteriorating. The continual warfare of former times had developed alertness, powers of concentration, ability for organization, and high intellectual powers. It was necessary to provide a substitute, and he advocated compulsory education. The Masai were not amenable to missionary influence, but he considered that beneficial results would be obtained by the institution of industrial schools, where the better management of stock, the use of the plough, the culture of fodder grasses, and the manufacture of dairy produce might be taught. Such schools would be under Government supervision, and the Masai might be compelled to attend between the ages of eight and twelve.

TRADE.—The Masai being averse to parting with their cattle, trade should be encouraged, and a demand induced, for flour and European articles. Umbrellas, cloth, blankets, tobacco, cooking pots, knives, axes, and other articles were becoming increasingly popular. Itinerant trading, together with the establishment of trading centres, would increase this demand, and it would be beneficial if veterinary restrictions on the movement of stock could be removed.

CONSERVATION OF WATER.—Much could be done to improve the water supply, and the Masai could be instructed to graze their cattle away from the permanent water during the rains.

Mr. McClellan's views.

Mr. McClellan, the Provincial Commissioner, Naivasha, agreed in general with Mr. Hemsted's proposals, but considered one central station to be insufficient for the whole area. The decrease in expenditure anticipated by the establishment of one station only would be counterbalanced by the increased cost of travelling.

Completion of the Masai move.

The Masai move was completed on the 9th of April, 1913, but further consideration of the question of the administration of the Masai was postponed until after his Excellency, Sir Henry Belfield, had completed his prospective tour in the reserve.

Mr. McClellan's Proposals, April, 1913.

In response to a request from headquarters, Mr. McClellan submitted his proposals on the 24th of April. His memorandum followed the lines of that written by Mr. Ainsworth, of the 28th September, 1911 (*vide supra*), but he considered that the reserve should be under the authority of the Provincial Commissioner, Naivasha. There should be two district stations, one in the extended reserve, west of the Uaso Nyiro, at which should be stationed one District Commissioner and two Assistant District Commissioners, and one at Ngong, with one District Commissioner. The former district would include practically all the Masai who had recently moved from Laikipia.

The place of a stock and grazing expert could, he thought, be efficiently filled by the Masai themselves. He considered that game in the reserve would do but little damage, and would leave the better grazing areas for less occupied parts on the arrival of the cattle from Laikipia.

DISPOSAL OF REVENUE.—Mr. McClellan suggested that 25 per cent. of the taxes should be set aside until a fund of Rs. 250,000 had accumulated, when this sum could be placed on deposit for famine relief, the interest being utilised in the improvement of roads in the reserve. In addition, 10 per cent. of revenue could be deducted for use on works, such as schools, roads, and reservoirs. The surpluses on hand at the end of every year, after all sanctioned works had been paid for, should be paid into the Treasury.

TRADE.—Itinerant Kikuyu selling tobacco in the reserve should be discouraged, but itinerant trading by Indians, Somalis, and others might be allowed on permit.

CROWN SETTLEMENT LANDS.—He considered that the Masai should not be allowed with their stock on settlement lands under any conditions, and residence, except in conjunction with employment on European farms should be disallowed. He did not agree with the proposal to create Crown settlement lands for the Masai outside their reserve area, but he considered that, when the time came, a portion of the reserve might be set apart for the settlement of detribalised natives.

9:Fosbrooke G-5 (1936-1948) 1948 FL12 Masai FL12
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SECTION II. THE LAIBON.

NOTE.—*Numbers following names refer to Genealogical Chart.* 128

The aim of this section is to record the functions of the laibon, or Masai Medicine Man, and the Masai attitude to him and his work, to study the character of recent laibonok, and the adaptations they have made under modern conditions, and from an analysis of these factors to consider what place the laibon should take in tribal government. One is apt to lose the main thread of such a thesis in a mass of detail, and for this reason many incidents will be omitted when they only confirm what has already been illustrated by example. Facts which are known to run counter to the general argument are, however, recorded. 791

A. History — recent origins — development — the three types of Medicine man — rules of succession.

The Masai legend of the origin of the laibon is recorded by Hollis. Briefly, a youth, ol-le-Mweiya by name, was found sitting on the top of Ngong Mountain, was adopted by the Laiser clan, and proved himself to be a great medicine man. This occurred about ten generations ago. The only difference between this legend and the one generally current in Kisongo is that Kidongoi (2), shown as the son of the original laibon in the Hollis genealogy, is regarded by most elders as the first laibon. 173 791

One interesting fact arises from the legend, namely that the Masai had penetrated as far as Ngong before they adopted a laibon, thus their original move and occupation of the Kenya Highlands must have been made without the supernatural guidance which the laibon alone can provide. On evidence which need not be recorded here, it seems certain that the Masai, whose age grade custom so closely approaches that of the Galla, were possessed of their present military organisation prior to leaving their original home. Thus it appears that the laibon is a later adaptation imposed on a self-sufficient organisation of government through age grades. Probably much of the confusion of function which exists to-day, the indefinite division of governmental authority between the laibon and the age-set leaders, is due to the adoption of an institution incompatible with the original culture. It would be wrong to regard the institution as being foreign to Masai nature, but it is probably true that it is a feature which had not found its true level in the tribal structure when European influence intervened. 182 791

Assuming that the institution is but recently acquired, its development can be deduced from similar occurrences to-day. For there are, generally speaking, three types of laibon to be found at present. First, there is the private practitioner who, for suitable remuneration, will perform such services as curing sickness, removing barrenness and insuring fidelity in wives. He is only consulted by individual patients. The next stage is when a private practitioner has acquired such a reputation that he is consulted by a deputation on behalf of a group of Masai, and provides charms and lays down a ceremonial to be utilized to the advantage of the whole group. Such practices are alleged to be efficacious for the above-mentioned complaints, and may also prove useful in procuring 791

9:Fosbrooke G-5 (1936-1948) 1948 FL12 Masai FL12
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choice resting on the general consent of the tribe. He whom the previous laibon had held in greatest esteem, and trained and nominated for the office, would normally be chosen. The past reputation of the candidate would, however, be a matter for consideration; if someone, other than the deceased's choice, had proved himself extremely powerful, it is possible that he would be chosen, for fear of the consequences were he overlooked. The maxim of English law, that none should benefit by his crime, is also applied. For the death of a laibon is as a matter of course attributed to witchcraft by a fellow Engidong, and the first step in choosing a new laibon is to ascertain who killed the old; such person is automatically barred from succession.

It has been represented that the above theory of late development of the institution stands or falls on a Masai legend. The answer to that is that very few legends are found without some foundation of fact, and secondly that there are many indications that it is a feature not fully assimilated by the Masai organisation.

B. **Pre-European Functions of the Laibon: Raids and War — Age-grade ceremonies (with certain restrictions) — local ceremonies — tribute — supposed administrative actions.**

Immediately prior to his death in 1890 Mbatian was living at Namanga, but had previously lived, as had his father Subet (8), at Lashaine Hill, immediately below the Mondul District Office. He was nominally the official laibon for the whole of the tribe, though his brother Mako lived and practised as a laibon at Engutoto lol Mako, in Ngorongoro Crater. It is also significant that Thomson refers to "the important Lybons (medicine men) Lengobe, Mbaration, and Lembarsacout," without singling out Mbatian as the leader. If he in fact occupied the position, bordering on chieftainship, that many Masai elders would have us believe, it is improbable that even an early traveller would fail to note and comment on it.

There can be little doubt that at this time a laibon's chief functions were:

i. Dispensing charms for raids.
ii. Supervising and blessing the age grade ceremonies.
iii. Propounding the ritual and giving charms for local ceremonies, concerned with fertility and disease (both human and bovine) and with rainfall.

It is probable that any acts which he performed in the executive sphere arose from these three main duties, which must now be examined more fully.

In the matter of providing *charms for raids*, it should be noted that raids are divided by the Masai into two types, major (*ol orora*), and minor (*ol wamba*). Both these names also signify a group of moran fitted out for war, the former larger than the latter. A third term, which might well be recorded here is *o remore*, signifying a fight with spears, more particularly the deliberate killing of an alien for the purpose of acquiring a reputation.

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SECTION III: THE AGE GRADE SYSTEM.

A. Basic importance of the system — an age-grade chart — formation of a new age and its ceremonies — endungore — engibata — emboloat.

The importance of the age grade system to the Masai social organisation cannot be over-estimated. It regulates a man's conduct in relation to his fellow men; it is the basis of such political organisation as the tribe possesses: together with clan and kinship it regulates a man's sexual life; organised religion, certain economic activities, and above all military organisation are dependent on the age grade system for their existence. 182 ● 561

In this chapter it is necessary to describe the system and thereafter to examine it in relation to the above-mentioned activities; this presentation has the unfortunate effect of appearing to divide up its manifestations into water-tight compartments. So it must be stressed at the commencement and borne in mind throughout that there is hardly a phase of male activity which is not subordinate to, regulated by, or interlocked with the age grades.

It is not proposed to give full particulars of every ceremony: in some cases these are not known, in others they have been recorded elsewhere. Sufficient detail however must be included to emphasise the theme of this chapter, that the system is all-embracing and that in its various aspects it absorbs a considerable amount of the energies of those participating and is a constant theme of thought and conversation throughout the tribe. 561

A brief outline of the system will enable the ceremonies hereafter mentioned to be appreciated at their true value.

The accompanying chart, dealing with two generations (*olaje*: plur. *ilajijik*) A. and B. each composed of two ages (*ol poror*: plur. *il poror*) *w*, *x*, *y*, and *z*, will, it is hoped, make the overlapping clear. Disregarding their relationship with the previous generation, age *w* is circumcised over a period of four years. Being the first age in the generation they are called *emurata tatene*, the right hand circumcision, but they are none the less junior warriors, i.e. junior to those of the previous generation. After about 7 years they are promoted to senior warriorhood in a ceremony called *eunoto*. About this time, preliminary steps are being taken for the formation of age *x*, which will also enter generation A, as the left hand circumcision, *emurata kedyenye*. About the time when age *x* is demanding promotion to senior warriorhood, some 5 years after their circumcision, age *y* of generation B, once again right hand, will be in process of formation. When *y* have been circumcised, *x* can perform their unoto ceremony, thus becoming senior warriors, but nevertheless remaining left hand. When age *y* is nearing senior warriorhood, and age *z* about to be circumcised, ages *w* and *x* perform the *ol ngeherr* ceremony, whereby they become elders.

From this it will be seen that the right hand circumcision invariably enjoys a longer period of warriorhood than the left, also that the country is never without a standing army of at least one complete age of warriors.

9:Fosbrooke G-5 (1936-1948) 1948 FL12 Masai FL12
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561 moran, acting as their guardians and instructors. But after the period devoted to family matters the newly made elders also start thinking about their protégés. Thus, at the moment, the Dwati are responsible for both ages of moran, Kisale and Merisho, yet the Dareto are already engaged in the preliminary ceremonies, *endungore* and *engibata*, of the future moran. This means that under the age grade system, two generations of elders are responsible for two generations of moran for a short time (note overlap on chart). But the elders who shoulder most political responsibility are the *il piron* or guardians of the main body of moran. The matter is by no means clear, but there exist vestiges of a ceremony now practised in conjunction with fertility rites, etc., whereby the senior elders retire and hand over the government to the junior elders.

So it should once more be stressed that after his service as a warrior a Masai does not settle into a dead level of elderhood. The different generations keep themselves aloof in such matters as deputations to the Laibon (though at times they combine) and in the meetings preceding and ceremonies following such deputations. A modern tendency to be noted is that when camped at cattle auctions each generation will cook and eat by itself. It is natural that men of equal age should associate, but the age grade system provides a clear-cut means of providing for this.

[264]

561 162 The following table, compiled in 1939, gives some examples of the distribution of population amongst the then existing age-grade generations. It is probable that there were a few more Nyangusi and Laimer than the table indicates, but that they had been exempt and omitted from the tax-registers which were used as the basis of enquiry.

Distribution of Population by Generations.

	Kibaya.	*Samatwa.*	*Engasumet.*	*Longido.*	*Total.*
Nyangusi ...	1	—	—	—	1
Laimer ...	2	1	—	1	4
Dalala ...	14	12	8	23	57
Dwati ...	58	52	23	26	159
Dareto ...	49	69	38	62	218
Total Elders ...	124	134	69	112	439
Kisale ...	82	123	55	200	460
Merisho ...	41	36	11	34	122
Total Moran ...	123	159	66	234	582
Grand Total ...	247	293	135	346	1021
% Moran to Total ...	49.9	54.3	48.9	67.6	57.0

The two most striking facts that emerge from this table are that more than half the adult male population were at the time moran, and that the Merisho or left hand age formed only a quarter of the moran population.

561 182 The basic function of the age grade system is doubtless military, and now that the necessity for maintaining a standing army has been removed it might be thought that the early demise of the system is an object to be desired and encouraged. True, modern conditions make

9:Fosbrooke G-5 (1936-1948) 1948 FL12 Masai FL12
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many of its features undesirable. The body of young men is largely relieved of economic duties and might be more fully and profitably employed for the benefit of the tribe and the community in general. Further, the process whereby the juniors have to fight the seniors for promotion is wholly bad. Again, the disparity of age between husband and wife is a direct result of the system; a large proportion of unmarried men leads to restlessness on their part; a large number of discontented wives leads to infidelity (even within the wide bounds of the Masai system) on theirs. Thus there is a constant threat to family stability.

But the system possesses many features of value, which are worthy of retention. It teaches discipline, manners and respect for one's seniors, the passing of which the elders of so many Bantu tribes deplore. Earlier circumcision, which would be one of the first results of any breakdown of the system, would shorten the period now devoted to herding, with consequent upset of the economic system. It would also mean that a full sex life could, with traditional approval, be practised earlier, with consequent detriment to the social organisation. Again, abstinence from tobacco and intoxicants during warriorhood are doubtless advantageous. Finally, the all embracing nature of the institution was stressed at the beginning of this chapter and was illustrated throughout. Its abandonment would, therefore, remove one of the main interests of a Masai's life, remove one of his chief topics of conversation and, unless replaced by an equal interest, lead to reduced vitality in the tribe generally.

What is required, therefore, is obviously adaptation of the system to modern conditions. The most pressing need is fuller occupation for the moran, to replace their previous military exploits. Many ideas, ranging from organised games to road work, have been and are being discussed and tried out with varying success. An alternative or complementary solution lies in shortening the period of warriorhood. This should not be done by later circumcision but by earlier standing down. If each age performed a ngeherr (or retirement) ceremony immediately after their unoto (or promotion) ceremony, they would have served as moran for a period sufficient — perhaps more than sufficient — to gain all the advantages which the age-grade system gives. Such a course would do away with the right and left hand ages in each generation. Each age would be a generation in itself, thus reducing the incidence of inter-age disputes. It would also mean that all moran would serve for an equal period and not involve the right hand age in 15 or more years' service. The Masai can adapt their organisation when conditions demand. For instance the right and left hand ages of the Dalala generation performed separate ngeherr ceremonies. The Dwati and Dareto generations were composed of right hand ages only. If such changes were possible in the past, they can and must be made at present, since the necessity for adaptation is even more imperative.

But retirement to elderhood involves more than the ritual act now practised at the ngeherr ceremony. It means a complete change of outlook brought about by the assumption of responsibilty in family and economic matters. In other words it involves a psychological rather than a ceremonal

13:Huntingford E-4 (no date) 1953 FL12 Masai FL12

The members of each *ol-porror* are circumcised in batches. Each batch forms an associating group throughout Masailand (like the *mat* of the Nandi), and has a permanent name which recurs in each age-set, and in each succeeding age-set. There are four such groups in the Right Hand; they are called *Il-cagen-opir*, "the big ostrich feathers," senior;[55] *Il-parigotua lay*, "our swift runners"; *Il-kirimboi* (meaning unknown); and *Il-tareto*, "the helpers," junior. The Left Hand, being smaller, has, according to Fosbrooke, only the last three of these groups. Women have no age-sets, but are considered to belong to the *ol-porror* which was in formation at the time when they were circumcised.

The main function of the age-sets was to provide a permanent source of man-power for fighting, and through them are still taught discipline and respect for elders; they thus affect behaviour patterns. An attitude of respect is required of junior to senior age-sets, while between members of the same set there is a relationship of equality and a sense of solidarity in their relations with other sets. Membership of a set also involves restrictions on both pre-marital and marital relations, of which mention has already been made. In the old days, the duties of warriors were chiefly to raid, in order to maintain as well as to increase the numbers of cattle; and to defend the country. Warriors were not allowed to drink intoxicants, but they had a number of privileges, which included access to the unmarried girls, and the right to demand milk at any homestead, and to oxen for eating. Though officially their fighting duties have been replaced by certain aspects of cattle management, mainly watering and night herding, there is a constant tendency in some tribal sections to raid their neighbours.

Clans

Clans (*in-kishomis*, sing. *en-kishomi*) are divided into sub-clans or primary divisions, *il-gilat*, sing. *ol-gilata*. They are dispersed throughout Masailand, among all the tribes (*il-oshon*), and are totemic and patrilineal.[56] It is not certain how many clans there are, and this uncertainty seems to exist among the Masai themselves. The exogamous unit is probably the *ol-gilata*, though Tombo ole Mbaei says that

	Hollis	Merker	Fosbrooke
Clan:	Il-Aiser	Il-Aiser	Il-Aiser
Sub-clans:	In-Kidoŋi	En-Kidoŋ (1)	En-Kidoŋ
	Il-Parkeneti	Il-Parkeneti (1)	Il-Parkeneti
	I-Lukumai	I-Lukumai (1)	
	Il-Partimaro	Il-Partimaro (1)	Il-Partimaro
		Il-Parsinko (2)	Il-Parsinko
		Enk-aji nanyokie (2)	Enk-aji nanyokie
Clan:	I-Lukumai		I-Lukumai
Sub-clans:	(According to Tombo ole Mbaei)		Kerin-kishu
		Sitayio (2)	Sitayio
Clan:	Il-Molelian	Il-Molelian	Il-Molelian
Sub-clans:	Il-Molelian-aate		
	Il-Mamasita	Il-Mamasita (1)	
	Il-Pojos		
	Il-Kipuyioni	Il-Kipuyioni (2)	Il-Kipuyioni
	Il-Moshono		
	Il-Masaŋua	Il-Masaŋua (1)	Il-Masaŋua
	Il-Mokorere	Il-Mokorere (1)	Il-Mokorere
		Il-Muinko (2)	Il-Muinko
		Il-Parserenko (2)	Il-Parserenko
		Il-Parsinde (2)	Il-Parsinde

[continued

[55] In Nandi the senior *mat* is called *Cagenopir*, usually shortened to *Coyinish*.
[56] On the authority of Tombo ole Mbaei.

/5 cont./

II.

000 The East African steppes as habitation area of the Masai people. -- Their immigration in three corps. -- Their battles. -- Division and distribution of the land among Masai, Wakuafi, Wandoróbo and their attitude toward one another. -- Influence of the Masai people on the sedentary tribes. -- Mixture with Negroes. -- The somatic characteristics of the three branches of the Masai people show their racial connections, the ethnographic ones their social connections.

131 Between the 34th and the 38th degree of longitude and the 3rd degree north and the 7th degree south latitude, in German and British East Africa, we find large steppes, which are often designated as the Masai steppes after their inhabitants. They are bounded by hilly lands that are mostly thinly populated, especially by sedentary Negro tribes, and are more or less well cultivated.

133 The terrain formation of the steppes is sometimes flat, sometimes undulating or rolling, sometimes hilly and, in this case, usually determined by volcanic activity. This stands out especially drastically on the Kenia /Mt. Kenya/, Kilimandscharo /Kilimanjaro/, Meru, and Ol Donjo l'Eng ai, on the latter of which, for example, on a narrowly circumscribed space /6/ between the steep slope of the Mutiek Plateau, the Gilef and Timbati mountains, hill follows hill and almost every one bears or conceals the ruin of a crater, a landscape such as we are familiar with from photographs of the moon.

13 The extent of the steppes, in connection with the existing amount of precipitation and water sites, made them a more than [182] adequate region for a stock-raising nomadic people. The very saliferous soil produces excellent fodder grasses and provides salt licks in countless places.

17 As far back as the history, the memory and tradition of the 131 people of these regions extend, and certainly still many, many centuries longer, these steppes were, and are up to the present 174 day, the arena of the Masai people. On the migration, or, more accurately, slow push, they came from the north, out of the

/103 cont./

619 728 After a battle of the Masai among themselves, the conclusion of peace is that the speakers, in the presence of a number of warriors of both parties, exchange their skin capes and sandal thongs. This is called etabaschage megitin = exchange of skin capes.

726 701 484 The length of the stretches covered on war expeditions, in comparison to that of their neighbors carrying on agriculture, is often astonishing. Performances of 60 to 80 kilometers a day, three or four days in succession, are by no means exceptions. If one considers, [702] however, that the training of warriors consist only of marching, that, [276] aside from their weapons, they carry nothing heavy, and before their marches, as well as during them, they partake copiously of stimulants, their performances in no way exceed those of a German infantry troop. The tales of the caravan people relate miraculous things about 701 182 147 271 the speed and endurance of the Masai warriors, and even European travelers have contributed to the spread of this legend in that they compare the physical performances of the Masai with those of the Europeans in the tropics. The untenableness of such a comparison is obvious. One also often hears how the Masai are admired for their alleged ability to be able to give up the drinking of water on their marches. Presumably this rumor arose from the fact that these people, in contrast to other tribes, never carry a gourd bottle of water on their 701 182 271 long migrations. The Masai, however, knows perfectly every little spot of the steppes, he knows every rocky basin, every tiny spring, he also knows where an apparently dry brook bed carries subterranean [823] water. Where water has collected in old hollow trees, and especially in baobabs, this is accessible to him through a series of steps made [824] out of foot-long taps bored in horizontally. Finally, there are a number of water-rich roots and tubers, which, chewed, are very well suited 701 182 222 by their water content to quench thirst. They serve him, /104/ just as the wild honey, not infrequent in the steppes, also serves as food on the march. A cuckoo bird, the honey indicator (Cuculus indicator, called [825] [136] eñ johoroi by the Masai), leads the Masai to the concealed honey holes. As soon as it sees human beings it calls with a strident sound and then flies slowly to the nearest honey place, to which the people follow it [825] in order to take out the honey. If the amount found is still not sufficient for the warriors, they bury the chewed comb, whereupon the bird, after

701 /104 cont./
• 182 a little while, will then lead them farther. Otherwise they leave it
222 the rest.
[825] When the warriors of an ol boror notice that their bones are
701 getting old and the el barnot surpass them in strength, they agree
561 that it is now time to think of marriage. After they have obtained
582 the permission of the speaker and then that of the chief, one after the other leaves the warrior association, each one shortly before his
701 wedding. He announces his retirement by means of a feast, the ol
561 geteñ l ol bãã, that is, ox slaughtering with a tournament. To this
574 all the inhabitants of the nearest kraals are invited and are shown hospitality with the meat of one or several head of cattle. As soon as these are killed, each warrior cuts off a piece of meat for himself and devours it behind a bush standing somewhat apart. Then each of those present receives his share, while the remainder is strung on sticks two meters high. For these the warriors fight with the girls and women in a game in which the latter vigorously swing the sticks, before which the former has more fear than the women, somewhat
[526] accustomed to beatings. Then the younger ones amuse themselves and play, for instance, tag (tosudja). Before there is thought of de-
[539] parture, about five o'clock in the afternoon, a married man and his principal wife go to the host and make the following speech: "adjogi megur' ira ol morĩni dada it' ol móruo, iñora ñ gischu inonu, ñ gera inonu, iñora naleñ, tabala 'mbaa el móran, ida tada ol móruo, tabala n dogitin bãgin el móran, ida tada ol móruo"; in translation: I say, you are no longer Ol morĩni, but Ol móruo, take care of your cattle and your goats and sheep and watch over them well, leave the occupation of the warriors, now you are ol móruo, refrain from all things of the warriors, now you are ol móruo.

701 After this feast it is up to the warrior whether he takes part more
561 or less regularly in the expeditions of war. As a rule he soon marries
[582] and lives with his wife either in the father's kraal or in the warrior kraal until all his contemporaries are married. Only then are they
[591] considered ol móruo: each one builds his own kraal and removes
[745] clothing, ornaments, and braid of the warriors. He is now at the end of the twenties, his best strength has been spent. In general the Masai, just like all members of the black race, spend their lives very quickly, they age early, without ever attaining a really advanced age.

/344 cont./

IV.

000 The future of the Masai People. -- Weighing the effect of the people-preserving and people-destroying factors. -- Polygamy. -- Nutrition. -- Fertility. -- Child mortality. -- Free love. -- Organization. -- Wars. -- Epidemics. -- National pride. -- Clash of the culture of the Masai with that of the Europeans. -- The incompatability of the two hurts the Masai. -- Harmful consequences of the impoverishment. -- Difficulty of becoming sedentary.

121 In order to make a prognosis about the future of the Masai people it seems necessary, first of all, to weigh the people-preserving and people-destroying factors established in the people, in its character and customs, and then to observe the phenomena that appear when the Masai meet the Europeans. We have many examples of the fact
• 182 that polygamy does not promote an increase in the population to the
595 extent that monogamy does as a rule. As the reason for this phenomenon one finds an accumulation of wives in the hands of the wealthy, and, as a consequence of that, celibacy for lack of women among very many of the less well-to-do and among the poor. It is obvious that under such circumstances polygamy leaves very many women
[162] neglected. But it is different among the Masai, for here there is such a surplus of women -- perhaps in part again as a result of polygamy -- that no man remains celibate, in fact the possession of only
[735] one woman is an exception. Hand in hand with this goes the not so unequal distribution of property: in practice there are scarcely any poor people. Another reason to which /345/ the decline in population among many polygamous peoples is attributed is that polygamous marriages as a rule are relatively poorer in children then monogamous
[842] ones. This objection is not to be taken into consideration here either, for we have seen that the fertility of the Masai women is very great. Yet, in order fully to consider the polygamy of the Masai in its economic effect, we must observe the milieu in which it exists. The polygamous household of the Masai may be compared to a stock company, to which the property, theoretically belonging solely to the house father belongs in practice. The house father is the chief

/345 cont./

182 595 shareholder, the rest of the shares are in the hands of his wives, who acquire these shares through the birth of a son. Through this the wives, who have the duty to tend and care for the livestock, are interested in the preservation of the property in the most extensive way. This is the one factor of the polygamy of the Masai promoting prosperity with all its advantages for the political economy. The other lies in the fact that many women give birth to more sons for one man than one woman could. Here, however, male offspring are augmenters of the paternal property. The boy grows up to become a warrior and brings his family the spoils of the numerous raids, through which not only is the herd increased, but, through the supply of new blood, is also improved.

Polygamy among the Masai is therefore a natural institution. Without it large masses of women would be deprived of their natural occupation, a condition that seems impossible for a primitive people. It is, moreover, a source of prosperity, which, among a culture-poor nomadic people, can only make itself felt favorably for their preservation as a people. From it follows, first of all, good nutrition, [146] which makes the body resistant to the effects of illnesses. It corresponds to my observations that among the Masai in general, among [165] adults, fewer cases of death occur as a consequence of illness than [164] is the case among the Negroes living in their vicinity. Also, serious illnesses are more infrequent among them than among the former 182 and are milder in their course. The circumstance that abortion is 847 practiced by the women in only very rare exceptional cases also undoubtedly acts to promote health. One can sufficiently observe the harm that this bad custom has often caused primitive peoples among the various neighbors of the Masai, though indeed there are also exceptions to this. Thus, I met a number of Dschagga women who went through this operation four to six times and allegedly, as well as apparently, without harm.

182 In contrast to the high fertility there is also a rather high child 165 mortality, though infanticide is entirely unknown. It is definitely 854 beneficial for the child that through work the mother is not kept [847] outside the kraal, but can always remain in the vicinity of the child. [853] The long nursing period of about two years is also advantageous.

/345 cont./

182 165 854 [362] [853] [146] [856] [164] Harmful to the child's health, on the other hand, are the poor huts, which are always /346/ filled with dense smoke, and furthermore the lack of cleanliness and the faulty diet. The belief, widespread among all African primitive peoples, that fat gives strength and health leads to the stuffing of the baby, despite all its struggles and screams, with unbelievable quantities of butter. Soor, as well as stomach and intestinal affections, and ailments of the respiratory organs are therefore also the principal illnesses that carry off the babies. If one compares the high mortality among children with the very low one in later life, and if one further considers that, in inspecting the Masai kraals, one finds almost only healthy people full of energy, one cannot resist the thought that the treatment of the children, especially the babies, unconsciously aims at culling out all the weak elements at an early age and preserving for the people only the most vigorous ones that are equal to the demands of life. Seen from this standpoint, that of natural selection, the high child mortality seems less unfortunate. Finally, the late age at which the men enter their first marriage is unfavorable for population increase. Until about the 28th or 30th year of life the Masai belongs to the warrior standing, and he may marry only after leaving it. This circumstance in turn makes free love, such as exists in the warrior kraals, an understandable social institution. One must judge this arrangement on the soil in which it grows, in order to remain objective. From the same standpoint we shall have to judge more leniently the free love existing among the married, which, despite numerous restrictions, appears to us like a continuous prostitution of the woman. One can do this all the more since through that professional prostitution is excluded here, and consequently the possibility of infection is greatly reduced; this last circumstance is undoubtedly to be regarded as people-preserving. Actually the Masai maintain that in former times (before the great livestock epidemics) venereal diseases only very rarely occurred. Immorality is rightly regarded as a people-destroying factor, and history teaches us by many examples how licentious and refined sensuality was one of the grounds that caused the decline of higher peoples. Here among the Masai, however, it is not a matter of this unnatural kind of

182 582 836 837 [548] [164] 182 831

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182 831 [181] immorality. Rather, I should call their behavior animalistic-natural and mention in this connection that the Masai, extraordinarily vain about preserving his youth, handsomeness, and physical strength, imposes upon himself wise moderation in sexual enjoyment.

182 721 An outstanding people-preserving factor is a strict organization. It can make a small people superior to a larger, less well organized one, and here has given the Masai a position of power over the Negroes. A well organized people of the steppes nowhere on earth grazes its [181] little lambs in quiet contemplation. Rather, such people are always characterized by a warlike and predatory nature. War makes itself felt here harmfully above all, since it /347/ devours great masses of men. It has often happened that only half of those who set out returned; indeed, they tell of expeditions in which all the warriors were killed. At the beginning of the nineties -- to cite one example, several thousand Masai warriors set out against Unyamwesi. They had assembled a few hours to the west of Meruberg /Mt. Meru/ and had as a guide an Unyamwesi man by the name of Degénja, who had lived for a long time among them. During the night before the planned attack, Degénja betrayed it to his countrymen. The Masai were repulsed with heavy losses and turned back. Far more than half of them died of hunger and thirst along the way on the twelve- to fourteen-day march. Such man killing expeditions of war are by no means rarities; rather they recur constantly in the history of the Masai. Certainly the great surplus of women is to be ascribed to them.

182 731 233 With regard to the harm that livestock epidemics (1)

1. The reason that the epidemics were so destructive around 1890 is, first of all, that two epidemics occurred in quick succession: a pulmonary epidemic and rinderpest, and, on the other hand, the renewal of the herds by war expeditions was in part made difficult, in part rendered impossible, by the military stations.

/347 cont./

182 731 233 caused the Masai people in the period before the occupation of the country by Europeans. I have no reliable observations made by myself or by Europeans. Such can scarcely exist, for at that time the Masai were a feared power that every caravan liked to avoid. I am therefore relying on the statements of old men. According to their recollection, the epidemics were never capable of producing actual famine. As soon as the beginning of an epidemic was observed, the Masai fled in wild flight with the herds, leaving the sick animals lying along the way. Half the herd at most is supposed to have succumbed. If one considers the size of the herds at that time, one understands that the surviving part could always still furnish sufficient milk and meat. [721] Furthermore, the war expeditions soon brought substitutes for the fallen animals and thus acted to preserve prosperity (2).

> 2. It is to be inserted here that empirically livestock epidemics caused few losses for the sedentary Negro practicing animal husbandry along with agriculture. This is probably chiefly due to the fact that he calls only very few head his own and keeps these in his hut, which is far from the next one. Through that the Masai were able to replenish their depleted herds quickly and easily.

182 186 Finally, the Masai's profound contempt for the surrounding Negro tribes was also favorable for the preservation of the people. It kept the people free of foreign elements, which here would only have resulted in a degeneration of the race.

121 177 The fable that primitive peoples would have continued to develop peacefully and favorably if Europeans, with their corruption, had not disturbingly interfered has long been recognized as such. On the other hand, however, it remains an /348/ undeniable fact that these peoples decline upon contact with the higher culture, and that many even disappear as a people. The reason for this phenomenon lies in the fact that these peoples have already been living on an unhealthy basis and have owed their preservation to means that we designate as

/348 cont./

121 177 illegal and immoral, because they run contrary to our consciousness of justice and our Christian morality, and which cause to arise in the economic field exploitation in the crassest sense of the word. Now while every state that occupies a savage country has the duty to appear as promoter and guardian of justice and morality and at the same time to promote economic development by guiding production along the paths of our modern principles, along with that it only too often overturns the foundation pillars on which the existence of a primitive people rests.

182 721 178 Thus in plague-ridden Africa the Masai largely owe their existence as a nomadic people, whose only resource lies in its livestock holdings, to the fact that they can always replace their losses by expeditions of war and plunder. As soon as the possibility of such expeditions is taken away from them, or at least very much reduced, through the erection [648] of military stations that grant protection to the victims of the Masai, there must naturally arise a situation in which a gradually increasing weakening of the vitality of a people takes place. What was formerly to their advantage, their war lust and the cowardice of the Negroes, now becomes fatal for them. Both entice them to raiding expeditions [361] again and again. In order to avoid the punishment deserved for that, they retreat into regions that they formerly avoided as harmful to the health for human beings and livestock, or on account of inferior pastures. If the Masai, when they came under the influence of the 177 182 European occupation, had still been the strong people of Mbatyan of 30 years ago, they might perhaps, after the example of other primitive peoples, have carried from it even though a marked, nevertheless only a temporary weakening in the meeting with the higher culture, and then gradually recovered again when they had become ready for its advantages. But we found the Masai already in a condition that 182 looked very much like ruin. The livestock epidemics around the 931 year 1890, which, not locally restricted, had afflicted the herds of all the Masai to such an extent that actually only miserable remnants were left, had produced a general and extraordinarily severe famine. Hundreds of thousands of Masai, especially men and boys, fell victim to it, and in the year 1895 the author still found the steppes around Kilimandscharo appearing in places as though they

/348 cont./

182 731 [648] had been sown with the bleaching skulls of those who had starved and out of the stricken animals. Any of the women and girls who had not died of hunger sought and found refuge among Negroes practicing agriculture, who always like to buy or kidnap female individuals. A mother would sell her child for a handful of maize and would sell herself a day later for a similar price, in order to avoid starvation. Negroes and caravans /349/ took possession of the will-less ones, in order to resell them as slaves. Many have since come back, in part through flight, in part through redemption by their relatives, but more are still found in strange hands. The latter, even though their blood lives on beneficially in the new mixture with Negroes, are permanently lost to the Masai people. So greatly has the misfortune, to which an opposite effect is so often attributed, broken up the former organization, the firm unity, that, soon after the end of the epidemics, the unhappy quarrel between the brothers Lenana-Zendeo about the undivided rule over the Masai could begin. With its continuing civil wars it acts powerfully toward the completion of the destructive work of the epidemics. The Negroes, with whom alone the Masai formerly waged war, except for smaller undertakings among themselves, which bore more the character of provocations than of serious battles, were opponents inferior to them. Now equal parties stand opposite each other, which makes the wars bloodier, more destructive.

182 731 669 [726] [186]

178 241 [433] [361] Through increasing impoverishment as a result of these epidemics and civil wars, there is now going on among the Masai -- as formerly among the Wakuafi -- a change from nomadism to sedentation, agriculture is taking the place of animal husbandry. The ones deserting the "people" in this manner are founding settlements, in part self-sufficient, in part supported by Negro tribes, somewhat removed from the dry steppes, there where the watering is adequate for the laying out of plantings. No one expects them to prove to be particularly skillful at this; but Nature, which goes so far to meet her children in the tropics, helps here too. A moderate watering suffices to make the batata shoot stuck in the virgin soil grow and produce tubers. Maize for the most part appears just as easily satisfied as advantageous. These then are the principal useful plants

/349 cont./

178 that are started with as a rule and which one therefore finds in all the
241 settlements. Yet despite the ease of production of the field crops,
the transition to agriculture nevertheless is taking place in a way
178 that is reducing the population in extraordinary fashion. First of all,
• 182 the acclimatization process slowly being accomplished demands a
164 great sacrifice of human lives. The Masai, little afflicted with
465 fever in the dry steppes, suffers with it quite seriously in the moist
regions in which mosquitoes are permanently at home. Thus on two
occasions in the same new settlement I found all the adults and many
children sick with fever. Another one had just been abandoned by
its inhabitants, leaving the sick behind. The ones left behind,
principally men and boys, were badly reduced by fever and, in
addition, suffered to a great extent from virulent leg ulcers, whose
great extent -- in many cases they covered the entire lower leg,
from knee to ankle -- probably is to be traced back to a general
weakening of the body by fever and lack of food; for such ulcers
are not common among nomadic Masai, and, where they occur,
/350/ they remain smaller and show a tendency to heal rapidly.
Other illnesses arise from the unfamiliar diet. The rapid transition
[262] from an almost pure meat diet to an almost pure vegetable diet
makes demands on the stomach and intestines that a body weakened
by fever is seldom equal to. Sickness and death from this cause
are frequent and are increased further by the consumption of bad
water. Thus, more than half the people in one settlement com-
plained of painful diarrhea and bloody stools. All these acclimati-
[842] zation illnesses seem also to manifest their effect in decreased
[163] fertility of the women and increased child mortality. I was repeat-
edly struck by the small number of sucklings (two-year suckling
period) and older children. Thus early in 1902 in Ngaruka, between
Lake Manyara and Lake Natron, among a number of about 50 women,
I found only twelve children, three of them babies. According to
the statements of the parents, very many children had died of various
ailments, especially fever, stomach and intestinal affections, several
178 also had perished in Masai attacks. For the Masai who are becoming
619 sedentary, the ones still living among the "people" as nomads are
721 a scourge that scarcely falls short of the illnesses just mentioned in

/350 cont./

178 its effect. Hated as faithless and despised as agriculturalists, the
619 sedentary ones are constantly plagued by raids that not only cause
72 them great loss in human lives, but also take away any possibility
[829] for them to arrive at any improvement in their way of life by keeping
livestock for the attainment of the meat and milk diet so necessary
[177] for them. Moreover, the frequent intercourse with sedentary Negroes
[164] and caravan people leads to an increase in the cases of venereal
582 diseases. Premature marriages of girls, which can not happen among
178 the Masai still living as nomads, is not rare among the sedentary
184 ones and often enough leads to the death of the young woman who
165 is scarcely more than a child and whose bony structure, despite her
attained capability to conceive, is not yet developed. Finally, it
178 must still be mentioned that no doubt the longing for the formerly
182 free life in the broad steppes and the feeling of humiliation over
having become a so deeply despised cultivator of the soil oneself
[186] are factors that have a wasting effect. The latter circumstance also
[177] brings with it a decrease of national pride. The barrier that kept
[144] Negroes out of the community of the Masai has fallen. A disadvan-
tageous race mixture hurting the people is slowly taking place.
[648] Among the Wakuafi this process was more rapid in their period. At
[721] that time no European administration prevented their raiding exped-
itions in Negro regions, from which they brought home livestock
and women experienced in agriculture.

177 In frequent -- almost daily -- intercourse that soon springs up
178 and then continues to exist between the Masai who have become
sedentary and the settled Negroes, the Masai naturally also share
in the disadvantages that /351/ come to the Negroes through the
encounter of their lower culture with our higher one.

178 We have seen how many difficulties sedentation brings to the
177 Masai, and it is therefore not surprising that a part of those who
361 have already become sedentary give up their fixed residences again
after repeated failures. These then often join the Wandorobo, to
live by hunting, and call themselves this.

19: Talbot K-4,5 (1956-1962)1964 FL12 Masai FL12

Allowing a three degree F. average temperature decrease for each 1,000 feet rise in elevation above sea level (Heady, 1960), much of Eastern Masailand would have up to six degrees F. higher average annual temperatures than Western Masailand. Over the greater part of both areas the mean annual rainfall is similar, with Western Masailand receiving roughly 30 inches while Eastern Masailand probably receives some 25 inches (Met. Dept., 1959).

Except for the Rift floor, the vegetation types and communities in both areas appear to have been much the same (Edwards, 1951:32; Edwards and Bogdan, 1951:3; Heady, 1960:12, et. seq. and his appended map of Grasslands and Potential Grassland Types). However, Eastern Masailand with lower rainfall and higher temperatures would be more vulnerable than the western area to desiccation through human activities, especially overgrazing, overburning, and diversion of water supplies.

As noted above, Western Masailand has been little affected by recent changes in human activity. On the other hand, Eastern Masailand has been intensively modified in the past fifty years or so. Much of Eastern Masailand is easily accessible by road and railway. Nairobi, capital of Kenya, lies at the northern end of Eastern Masailand. Nairobi was started in 1899

19: Talbot E-4,5 (1956-1962)1964 FL12 Masai FL12

*13 as a base camp for construction of the Uganda railway.
• 182 Today it is a modern city of about 250,000 people.
184 Spreading south and east from the city along the edge of Masailand are fenced ranches and farms. The Great North (Cape to Cairo) Road runs dustily through Eastern Masailand. Arusha, virtually surrounded by Masailand in northern Tanganyika, is a provincial capital and the center of a flourishing farming district. The provincial headquarters for the Masai Administration in both Tanganyika and Kenya are situated in Eastern Masailand.

The Masai living east of the Rift are from different sections of the tribe than those living to the west, and they are significantly less conservative. Consequently Eastern Masailand has received more ranching schemes, water holes and other projects to "improve" their livestock grazing than Western Masailand, and therefore Eastern Masailand is far more seriously overgrazed. Over much of the area vegetation is impoverished and surface conditions show severe desiccation.

12 It is difficult to obtain quantitative data on
*13 the numerical increase in livestock or its impact on
*233 the vegetation, since such data from earlier years are not generally available. One area where such data

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are available will serve as an example.

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Passing north from Arusha, the Great North Road skirts Mt. Meru, then crosses about 40 miles of fairly level land before passing Longido Hill, 14 miles south of the Kenya border. In German times (prior to 1918) the land from here westward into the Great Rift was maintained as a game reserve and Masai were excluded. From the descriptions of East African residents who visited the area during and just after the 1914-1918 war, and from the description and vegetation map of Jaeger (1913) this area was open perennial Themeda grassland, with good grass cover and abundant wildlife.

The British took over Tanganyika as a Trust Territory after World War I, and in the 1920's they
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opened the reserve to the Masai. For a time the Masai had moderate numbers of livestock, grazed seasonally in the area along with the wild ungulates. Then a series of water points were provided, using bore holes and piping water into the grassland from springs on nearby wooded mountains. This water allowed the Masai to keep their cattle year-long in areas formerly used only seasonally, with the result that most of the area has been devastated. The Themeda with the rest of the perennial grass cover is gone. The soil is gone, leaving

19: Talbot E-4,5 (1956-1962)1964 FL12 Masai FL12

12 erosion pan and blowing sand and dust. Thorn bush has
*13 invaded the area and the aspect at present is of an open
*233 thorn bush wasteland with virtually no herbaceous ground
• 182 cover. One vestige of the former grassland remains. At mile 29 from Arusha, the road passes through a roughly half mile wide strip of open perennial grassland. This is the bottom end of a European ranch where grazing has been strictly controlled.

*13 The grazing-induced devastation seen in the
182 above example is repeated, in greater or lesser degree,
*233 throughout Eastern Masailand.

The wildlife in Eastern Masailand has been severely affected by this recent land abuse. Diversion of water to the Masai water points has denied the wild animals many of the sources of water they previously relied upon during the dry seasons. Of the seven or eight major dry season water supplies that existed in Eastern Masailand in Tanganyika, less than 20 years ago, only two remain at present (Talbot, Talbot, and Lamprey, 1961). Overgrazing by domestic livestock has altered or removed the grass cover which provided much of the food supply for the wild ungulates. The over-grazing-induced change from grassland to thorn scrub rendered much of the habitat unsuitable for the open

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grassland species. Fences have further restricted the movements of the migratory species.

The impact of recent land use changes on wildlife in Eastern Masailand can be illustrated by the wild ungulates of the Athi-Kapiti Plains. This Themeda grassland lies immediately south of Nairobi, in Kenya's Eastern Masailand. Fifty years ago, in terms of climate, soil, vegetation, elevation, and animal life, this area was virtually identical with Western Masailand, 60 miles airline to the west. Here, as in Western Masailand, the wildebeests are considered the key ungulate species, and they will serve as an example:

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Until about 1927 the wildebeest population spent the wet seasons on the Athi-Kapiti Plains and in dry seasons moved north, east, and south (Kenya Game Dept., 1908-1914, 1920-1921, 1925, 1927; Percival, 1928; Simon, 1962). From the above references and discussions with local residents and game authorities, especially the Hon. M.H. Cowie, Director of the Royal National Parks of Kenya, Mr. S.I. Ellis, Warden of Nairobi National Park, and Captain D.R.P. Zaphiro, Game Warden of Kajiado District, the wildebeest populations and movements in Kenya east of the Mara, area, prior to the 1920's appears to have been as follows: There probably were two main populations: one centered on the

19: Talbot E-4,5 (1956-1962)1964 FL12 Masai FL12

*136 In times of stress some zebras have been noted making such a movement (Kenya Game Dept., 1962), but we have no recent evidence of any such moves by wildebeests.

The population of wildebeests on the Athi-Kapiti Plains apparently had access to all of the area occupied by wildebeests in Kenya east of the Rift, and they may have moved south into Tanganyika. The southern part of this area, however, was only visited in times of drought. The normal non-drought range for these animals probably covered roughly 3,400 square miles. The present range is only some 28 per cent of the former range. It represents the former wet season range for the wildebeests. With the exception of the watercourses in Nairobi National Park and part of the Athi River, there are no dry season water supplies or grazing grounds left accessible to the Athi-Kapiti wildebeests.

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• 182 According to Game Warden Zaphiro, the population of wildebeests in the southern area now appears less than that of the Athi-Kapiti Plains. Severe overgrazing by domestic livestock and diversion of water have rendered much of the area unsuitable for wildebeest habitat. Since the early 1900's, much of the area on both sides of the border that was open perennial grassland has been turned to near desert or waterless, sandy, thorn scrub

19: Talbot K-4,5 (1956-1962)1964 FL12 Masai FL12

*136 • 182 (Talbot, Talbot, and Lamprey, 1961).

The wildebeests in Western Masailand represent a population under essentially undisturbed conditions while those in Eastern Masailand are a population surviving under conditions much altered in the past half century. As described below this situation appears reflected in differences between the two populations, especially in population dynamics and behavior. Comparison of the data in this report and Talbot and Talbot, 1963b with the results of ecological studies in Eastern Masailand could yield significant information on the differences between disturbed and undisturbed grassland ungulates.

The area occupied by these wildebeests is about 950 square miles. It is now considered a closed habitat for the wildebeests (Zaphiro, 1959) being bounded by the Rift wall in the west, bush country and grazing schemes to the south, hills, fenced farms and the city of Nairobi on the east and north. Therefore the wildebeests are unable to migrate to seek their preferred forage when the grasses in their present restricted range dry. And the grasslands that are available to them have been altered by overgrazing.

*136 to most kinds of life, and certainly a barrier to normal wildebeest movements. If this area were less desiccated in previous times, it probably would have been the only point of contact between the eastern and western races of wildebeest. The Roosevelt collections from the Suswa area, however, would indicate that there had not been significant mixing of the races there, implying that any recent contact would have been on a small scale and any significant connection had been in the far past.

*136 184 224 *233 • 182 (262) No wildebeests remain in the northern area of the Rift. There are fenced ranches now south of Lake Naivasha and in the Rift adjoining the Suswa area. The remaining wild animals (kongonis, gazelles, etc.) are hunted on some of these ranches as food for labor. It appears that after the former wildebeest population of this area became isolated from the populations farther west (through Masai overgrazing in the Mosiro area) it was gradually hunted out. Kongonis and Thomson's gazelles are still found in this area.

Summary

*13 121 Masailand is centrally located in the system of grassland belts of Africa. The grassland ecosystems of Masailand are typical of the most biologically productive

19: Talbot K-4,5 (1956-1962)1964 FL12 Masai FL12

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231 In 1904 the cattle numbers in Masailand of Kenya were estimated at about 50,000, and there were an estimated 600,000 sheep (Simon, 1962). By 1961 the Kenya Masai had a population of 973,000 head of cattle, 660,000 sheep and goats, and a large number of donkeys, "at least double the quantity that their land will carry during normal conditions" (Glover and Gwynne, 1961).

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• 182 Range Management of the Masai: Grass is recognized by the Masai as being important to their livestock. But in general those in Western Masailand appeared to have surprisingly little appreciation of the types of grass that were preferred by their livestock or of the effect of varying grazing pressures on the grasses. There are Masai names for a number of the grasses. Yet many Masai in the study area only know a few of the more common ones. When discussing grass foods the Masai almost invariably say that the cattle eat grass, as do the wild animals. There appears to be little appreciation of the differing diets or well defined preferences exhibited by these animals (see below). When inquiring about the names or characteristics of various grasses the typical answer we recieved was to the effect that we were fundis (experts) on grasses, while they were fundis on livestock. They would then point out that in a herd of several hundred animals they knew

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232 each one. This example, in fact, provides an insight
182 into the emotional nature of animal husbandry of the Masai.

*13 The Masai realize that bush is encroaching in
232 many areas and that the forage is not as good as it
182 used to be, but this is explained as a shauri ya Mungu,
*233 a matter of God's will, not man's. They will leave their animals grazing on an area where there is water as long as there is any grass left. The idea that overgrazing can weaken or kill grass plants appears to be either foreign to them, or it is outweighed by other considerations unknown to us.

232 With the exception of burning, discussed below,
182 we did not see a single example of any range management
*233 activity that was not directly based on water or disease.

*13 The original pattern of migratory or nomadic
*237 grazing followed by the Masai duplicated that of the
182 wild animals. Under the environmental conditions of Masailand it was and is probably the most efficient and potentially most productive way to use the range-land. As will be discussed below, under the semi-arid conditions of Masailand many grasses cannot support heavy year-long grazing while they can thrive under periodic

#13 #233 • 182 heavy use. The ranching schemes put in for the Masai in Eastern Masailand illustrate this point. Water holes were provided and areas were set aside for ranching projects. No real control was placed on the numbers of the cattle. The water allowed the cattle to remain in the areas throughout the year. Previously lack of water had enforced seasonal grazing with cattle and wild animals grazing the areas during the wet season and an almost complete rest during the dry season. Yearlong grazing quickly killed the perennial grass cover and without fuel for fires the brush encroached. Flying over Eastern Masailand now, one can easily pick out these grazing improvement schemes; they stand out as red blocks of bare, gullied earth.

Wherever yearlong water was provided for the Masai, they used it to increase their livestock numbers rather than to spread the grazing pressure of the existing livestock. The administration that provided the water did not enforce any limitations on numbers. Apparently all attempts to show the Masai the damage that overgrazing was doing to their own future ended in failure. Outside of a few particularly educated Masai, we know of none who appear to understand or appreciate the importance of the overgrazing problem.

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A several years' drought culminated in 1961, and as a result of the extreme overgrazing in Eastern Masailand, thousands of cattle and many Masai died. As was evident on the ground, and as clearly pointed out by many -- even veterinary officers (Waddington, 1961) -- the mortality was due to starvation on range depleted by overgrazing before the drought. There was plenty of water for the animals to drink. The mortality in the cattle of Eastern Masailand ran from 300,000 to over 400,000 head, and I was told that over 1,000 Masai starved to death also. In spite of this dramatic illustration, the Masai to whom I talked in 1962 blamed their difficulties on the will of God or the Europeans who appropriated their land.

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Masai Livestock: The Masai cattle of Western Masailand today are a mixture of breeds with short-horned zebu (Bos indicus) predominating. The Masai highly prize longer horned animals, and occasional herds will have a massive-horned Hamitic Ankole bull. It has been suggested (Payne, and Masai, verbal) that before the rinderpest epidemic of the 1890's the Masai cattle were predominantly long-horned. The rinderpest epidemic wiped out most of these animals, and the short-horn zebu, with its greater resistence to rinderpest, took their place. The short-horn zebu was introduced from

19: Talbot K-4,5 (1956-1962)1964 FL12 Masai FL12

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231 We had the feeling, however, that donkeys just as other
554 livestock are a measure of success and security, and regardless of the need some donkeys would be maintained.

*136 These donkeys are small animals whose weight
231 is probably less than half that of a wildebeest (i.e.
*233 under 200 pounds). They are quite independent. We often saw the small herds of donkeys leave a boma unherded and go to a water hole, then graze back to the boma. This practice probably would not be followed in areas where predators were common, but in the peripheral areas it appeared to be the rule.

178 Large numbers of donkeys appear to have been
231 the rule for some time. Joelson in a general discussion
*233 of East Africa in 1928 referred (p.61) to the "Masai, who graze immense herds of cattle, small stock, and especially donkeys..."

*233
182 Burning
232 The Masai burn grass whenever it is dry enough
824 to ignite. The reasons they give for burning include the following: It produces a flush of new grass that is particularly palatable, nutritious and easily available for their livestock. It clears the woody growth and makes new grazingland. It clears or reduces ticks, tsetse fly, and disease.

ticks, tsetse fly, and disease.

Burning grassland appears to be a deeply ingrained cultural trait. Young herdboys will seek out and ignite small patches of unburned grass, sometimes only one or two feet across. We have watched Masai moran striding across a dry plain lighting matches as they went, leaving a long line of small blazes gradually joining together behind them. We have watched junior and senior elders lighting fires, as well as boys and moran. We had marked plots that were burned as much as four times in one year. So we would add to the above explicit reasons for burning, the implied reason that they also burn simply because they get some satisfaction out of it.

Fires are lit with matches. Possibly some are started from cooking fires that get away. Some fires, especially in wooded areas, are started by Wanderobo honey hunters (see below). But virtually all the fires whose origins we investigated were lit by Masai.

It seems probable that the coming of Europeans has altered the fire regime by providing large supplies of matches. It is far easier to light fires with matches than by using flint or other primitive means. With fires

easier to light more fires are lit, just as in the case of hunting tribes who have received firearms: with game easier to kill, more game is killed. Control in these matters appears to be enforced by availability of tools and difficulty of accomplishment, not by any conservation ethic.

We questioned Masai, other Africans, and Europeans about lightning fires and never found the slightest evidence of lightning causing fires in the savanna country. There is no doubt that it ignites some fires in rim-rock or mountain areas, but we never even saw a lightning-struck tree in the study area. All the lightning we observed in storms was high, it occurred in heavy rain storms, or it was low in the region of Lake Victoria.

There does not seem to be any discipline or organization to the burning by the Masai. Fires are started in dry grass when herds leave an area, but they are also lit when herds arrive in an area, if the grass is dry enough. They are even lit in pauses during rain storms.

The forest country on the hills is also burned at

19: Talbot K-4,5 (1956-1962)1964 FL12 Masai FL12

every opportunity. There the purpose is primarily to clear new grazing land. During the 30 months of our major study period, we were in sight of the Mau forest (at the foot of the Mau Escarpment) at least twice a month, often in the rains, and only once did we not see smoke from a fire burning in the trees or brush.

Relations with Wildlife

The most significant influence the Masai have exerted upon the wildlife is their protection through excluding hunting tribes from Masailand. The Wanderobo are an exception, but there are relatively so few Wanderobo that they have little effect. The areas of East Africa where the finest assemblages of grassland wildlife still exist are those in Masailand.

The animals Masai hunt or have hunted include buffalo for shields and possibly food, eland for food and giraffe for hides, the hides and tail hairs (to ornament gourds and dresses, according to Millais, 1920), lions and sometimes leopard for defense and for lion manes, and rhinoceros for horns and to spite national park authorities (particularly in the past decade). In times of drought the Masai may spear various animals for defense or to avoid competition for scarce water. They will even spear elephants at such times (Grant, 1957).

19: Talbot E-4,5 (1956-1962)1964 FL12 Masai FL12

E 137
.182

FIRE

Burning or the lack of it can determine the vegetation patterns within the study area. But fire is dependant upon fuel left or removed by the grazing animals, and on the season and timing of the burn which is determined by the Masai (Africans outside Masailand, and Wanderobo and now National Parks officials) who light the fires.

Except for the short grass plains of parts of the eastern Serengeti and Loita Plains, virtually the entire area of Western Masailand was burned at least annually during the period of study. There are numerous small islands which the fires miss, and a few fairly large areas which are protected for various reasons, but fire is very general.

E 137 Throughout most of the open grasslands there are shrubs and woody growth. These are suppressed by frequent burns. In areas burned annually the woody vegetation may appear as "seedlings" following the rain, yet examination of the "seedlings" shows that they have an extensive root system culminating in a hard often-knobby crown at ground level. They are several years old and apparently enough energy can be stored

19: Talbot K-4,5 (1956-1962)1964 FL12 Masai FL12

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• 182
3H

MAN'S ROLE IN THE GRASSLAND ECOSYSTEM

The Masai are not now and probably never have been in a real equilibrium with their environment. Their history as we know it can be interpreted as roughly parallel to a part of the Americans' exploitation of the United States; exploiting a bit of land and then moving on west until there was no more land to the west.

[78] [77] The exploitation of land by the Masai was a very long term process until the advent of the Europeans. The combination of peaceful administration, veterinary services, and matches have greatly accelerated the rate of exploitation, but they do not appear to have altered the basic processes. The only difference is that this time the Masai have no more land to the west.

It would be interesting to know if this basic lack of equilibrium with the environment was common to other pastoral tribes in Africa and especially those who preceded the Masai.

As described and discussed above, the grassland ecosystem in Western Masailand, including its wild fauna, is maintained -- and created -- by a combination of

*13 3H • 182 grazing and burning. We have no evidence of fires in the area lit by any agency other than man. Fires might be started at rare intervals by Lengai Volcano. They might be ignited by lightning. But if the climatic regime of the past 20 years or so is typical, lightning fires must be exceedingly rare. Creation and maintenance of the grassland ecosystem requires frequent burning. The inescapable conclusion is that man is very closely associated with the origin and maintenance of the ecosystem.

This conclusion is obvious and not new. Swynnerton in 1936 (p. 464) discussing the spread of tsetse flies wrote:

> The wooded savannas which cover east Africa today are essentially the product of a cultivating, grass-burning man. Few fires are lighted by nature, and fewer still can have arisen when the whole country was under the cover of the evergreen forest and deciduous thicket which evidently preceded so much of the savanna and which today succeeds it when we exclude the grass fires. Whether our savannas originated before the advent of man or after -- perhaps many thousands of years ago in a man-settled Sahara with a moister climate than today -- none can say. It can, however, be said with some confidence that G. morsitans and G. swynnertoni, the two tsetse species that essentially belong to savanna, owe their present distribution to man.

*13 Yet there is a curious reluctance on the part of many to accept the importance of human activities in shaping the landscape. H.C. Pereira wrote (pers. comm. 1961) that: "All ecologists agree that natural tree and grass savanna associations in Africa are stable climax